

Activity 4

Think About It

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- Why do you think that the production of coal has decreased?
- Why do you think that the consumption of coal has increased?
- Given that coal is a finite, nonrenewable source of energy, what are some ways to extend the supply of coal?



WHAT DO YOU THINK?

Activity 4

Investigate Part A

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Table 1 United States Coal Production, by Region 1991–2000 (in million short tons ¹)				
Year	Appalachian	Interior	Western	Total
1991	457.8	195.4	342.8	996.0
1992	456.6	195.7	345.3	997.5
1993	409.7	167.2	368.5	945.4
1994	445.4	179.9	408.3	1033.5
1995	434.9	168.5	429.6	1033.0
1996	451.9	172.8	439.1	1063.0
1997	467.8	170.9	451.3	1089.9
1998	460.4	168.4	488.8	1117.5
1999	425.6	162.5	512.3	1100.4
2000	420.9	144.7	509.9	1075.5

1a. Summarize the trends in coal production for the Appalachian region.

1b. The Interior region.

1c. The Western region.

1d. Total.

2a. Make a graph showing coal production in the three regions and project coal production

for the next 50 years.

3a. Which coal-producing region do you predict will be the first to exhaust its supply of coal? Explain.

3b. Identify at least two factors that might affect actual coal production.

Activity 4 Digging Deeper

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Coal

a rock that contains at least 50% plant remains

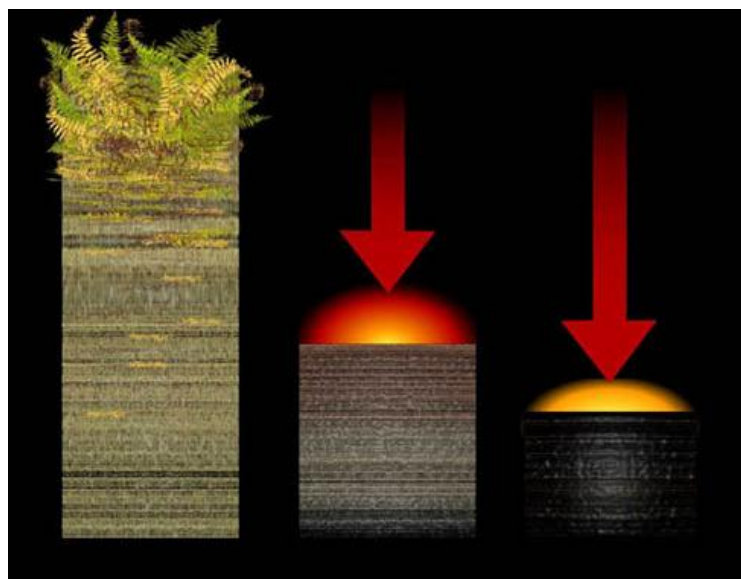


Coal formation

coal begins to form when plants die in swampy areas

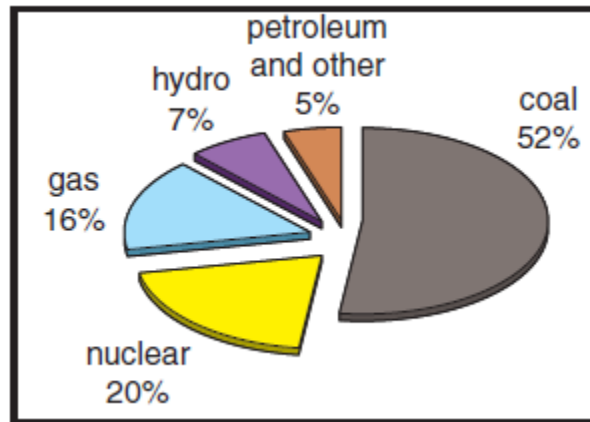
The dead plants are covered and compacted by more plants, water and sediments

After millions of years, coal is formed



<http://www.sceyencestudios.com/movies/coalformation.swf>

It produced over 52% of electricity in the U.S. in 2000



Coal production

began to decrease in the mid-1900s because:

- the steel industry began to decrease (coal is used in steel production)
- oil and gas began to replace coal for transportation and home heating

It has increased since the early 1960s because of increasing demand for electricity and the development of new coal fields

Coal mining

three major factors determine which coals are currently economical for mining:

1. The cost of transportation to areas where the coal is used
2. The environmental concern associated with mining and use of coal
3. Geologic factors—the quality, thickness, volume and depth of coal

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Check Your Understanding

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1. What are the major factors that affect which coals are economical for mining?
2. What major factors have affected the patterns in coal consumption during the 20th century?